

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TELECOMMUNICATIONS ADVISORY GROUP

January 19, 2006
MAG Office
302 North First Avenue
Phoenix, Arizona

MEMBERS ATTENDING

Greg Binder, Phoenix, Chair
*Kevin Hinderleider, Avondale
Dee Hathaway, Buckeye
✓Jim Keen, Carefree
*Patrick Hait, Chandler
**Pat Timlin, El Mirage
**Mike Ciccarone, Fountain Hills
Shawn Woolley, Gilbert
**Ajay Joshi, Glendale

Scott Osterbauer, Maricopa County
**Dale Shaw, Mesa
**Duncan Miller, Paradise Valley
**John Imig, Peoria
*Lyn Gillean, Queen Creek
Kevin Sonoda, Scottsdale
**Randy Jackson, Surprise
Dave Heck, Tempe
✓Chuck Brown, Tolleson
*Randi Alcott, RPTA

*Members neither present nor represented by proxy.

OTHERS PRESENT

✓Betsy Wise, Carefree
✓Councilman David Schwan, Carefree
Mark Goldstein, IRC
Karrie Rockwell, NeoReach Wireless
Audrey Skidmore, MAG

Heidi Pahl, MAG
Steve Gross, MAG
Steve Smith, MAG
Eric Norenberg, Mesa
✓Tim Lansing, Tolleson

**Participated via telephone conference call.

✓ Participated via video conference call.

1. Call to Order

The meeting was called to order at 10:02 am by Chair Greg Binder. Voting members Jim Keen and Chuck Brown attended via videoconference and voting members Pat Timlin, Mike Ciccarone, Ajay Joshi, Dale Shaw, Duncan Miller, John Imig and Randy Jackson attended via telephone conference call. All members introduced themselves.

2. Call to the Audience

No comments were made by the audience.

3. Approval of the May 19, 2005 Meeting Minutes

It was moved by Dee Hathaway seconded by Ajay Joshi and unanimously recommended to approve the May 19, 2005 meeting minutes.

4. City Wi-Fi Models and Phoenix Sky Harbor Wi-Fi Implementation

Greg Binder thanked the guest speakers for attending the meeting. He said that the Phoenix Sky Harbor Wi-Fi presentation will not be given because the guest speaker had a personal emergency.

Dave Heck discussed the city of Tempe's wireless access network model deployed and managed by NeoReach Wireless. WazTempe (Waz stands for "wireless access zones") covers a 40-square-mile area of Tempe that will provide wireless Internet to 160,000 Tempe residents. He said that WazTempe will provide municipal services to Tempe police, fire, emergency and city/Arizona State University personnel. Mr. Heck showed a video of Senator John McCain congratulating Mayor Hugh Hallman and Tempe Council on the city of Tempe Wi-Fi project.

Greg Binder asked if the free "anywhere" access is limited to the domains: tempe.gov and asu.edu. Dave Heck replied yes, there is 2-hours limited free internet access in the downtown Tempe area. The two free hours are not offered anywhere else.

Greg Binder asked how public safety usage gets priority. Dave Heck said that the city can control the virtual network, they have a carved out VLAN and the city has guaranteed bandwidth using QoS. Audrey Skidmore asked what type of security is being used for the public safety network and how do cities ensure the security. Dave Heck said security is handled by the endpoints and what Tempe uses in between is not that significant. He said the network has been certified by the FBI and the State. Shawn Woolley explained the security methods used for the Gilbert network.

Greg Binder asked for an explanation of the company, NeoReach Wireless. Karrie Rockwell explained that NeoReach Wireless was incorporated in 2005 as the technology division of MobilePro Corporation to manage the company's wireless service offerings, including municipal deployments and wireless ISP acquisitions. She said that NeoReach Wireless was awarded the City of Tempe's municipal network in April 2005; a 40 square mile, border to border, Wi-Fi project, the first of its kind in the country. She said that NeoReach Wireless is currently deploying similar networks in Sacramento, CA; Akron and Cuyahoga Falls, OH; Farmers Branch, TX and Chandler, AZ. She noted that NeoReach Wireless has responded to additional RFP's and is actively pursuing negotiations with several other municipalities to own and operate their wireless networks.

Greg Binder asked if there a risk of degradation if there is a lot of interest in the Wi-Fi access. Karrie Rockwell responded that speeds fluctuate based on usage. She noted that there can be 64 users/radio/access point and there is an access point every 1,500 feet in Tempe. She said that as demand grows they can put in more access points.

Dee Hathaway asked if WazTempe is using Voice over Internet Protocol (VoIP). Dave Heck replied WazTempe is used to deploy some Tempe VoIP sites. Mr. Heck added that NeoReach Wireless has VoIP cell phones and that new cell phones have dual technology. Shawn Woolley said that he has a cell phone that has four-way technology and it picks up the best technology in a zone and uses it. Mr. Woolley said that he has had a good experience using Wi-Fi VoIP technology. Karrie Rockwell mentioned that Chandler has recently contracted with NeoReach Wireless for a city of Chandler Wi-Fi network. Dave Heck said that once the city of Chandler deploys Wi-Fi, Tempe residents can roam on their cell phones in Chandler free of charge. Mr. Heck said that the city of Tempe RFP for this project is available to other jurisdictions.

Kevin Sonoda, explained the city of Scottsdale Wi-Fi model and implementation. He said Scottsdale contracted with Wildfire Broadband Wireless Communications to provide fee-based Wi-Fi access to downtown and city hall with speeds up to 6 Mbps downstream and 2 Mbps upstream. He said the Wi-Fi service area is in downtown Scottsdale, bordered by Chaparral Road, Osborn Road, Miller Road and 68th Street. Mr. Sonoda said the impetus for cities getting Wi-Fi is the perception of being technologically savvy.

Shawn Woolley asked if Scottsdale was looking at the in-kind service or straight fee model. Kevin Sonoda replied fee only. Shawn Woolley asked why Scottsdale thought Wi-Fi service would become extinct if it were a national standard. He noted that Scottsdale does not know what will win out, cell phones or Wi-Fi data services, it all depends what people will want and what the market will bear.

Shawn Woolley said that Gilbert has a 3-4 tier deep, model so a user can switch between networks and use whichever one works best. Shawn Woolley said that Gilbert has 20 police cars using Wi-Fi only. They use a commercial provider where the speed and coverage is very good and in one month they had five hours of downtime. Kevin Sonoda said Scottsdale has 400 police cars using Wi-Fi from Cingular Edge.

Greg Binder asked if Tempe or Scottsdale were getting push back from the ILECs. Dave Heck responded that the incumbent telcos have been silent. Shawn Woolley and Kevin Sonoda said they found that the ILECs were silent as well.

Greg Binder asked what quality of access was like inside a building. Shawn Woolley said that building penetration is an issue, that they are looking into it and large buildings (40,000 square foot or greater) and underground parking garages have problems getting access. Karrie Rockwell said that their Wi-Fi service is good for outdoor activities including first wall of a building. She added that they are thinking of extending the Tempe Wi-Fi network to include the Arizona Mills Mall and a hotel.

Heidi Pahl asked if Tempe noticed an increase in inquiries to www.tempe.gov due to the free Wi-Fi service. Dave Heck replied that Tempe's Wi-Fi project is not completed and they are not tracking usage. Shawn Woolley said that residents in Gilbert are eager to use any technology that makes it easier for them to interact with the town. Mr. Woolley added that Gilbert is trying to reach into the residential areas -- to the homes of school children-- since schools are drivers of the technology. He

mentioned that it is important to ensure residential coverage is cost effective and flexible for students.

Dave Heck asked if the Scottsdale model is simply a replacement or alternative to DSL or cable modem. Kevin Sonoda replied yes, Scottsdale is not concerned about mobility. Dave Heck asked if a provider could cherry pick light poles in Scottsdale to place their Wi-Fi equipment. Kevin Sonoda said yes, but it is not cost effective to cherry pick. Scottsdale's fee model is based on the size of the coverage area.

5. MAGTAG Working Group Projects

Randy Jackson mentioned that the MAGTAG Information Sharing Working Group continues to meet every other month to brainstorm and discuss topics and guest speakers of interest to the membership. He thanked today's guest speakers for their detailed explanation of their city wi-fi models. Mr. Jackson invited interested MAGTAG members to attend the next information sharing working group meeting.

Heidi Pahl reported that the Information Sharing Working Group will be meeting in February to plan for the March 2006 MAGTAG information sharing session. Ms. Pahl reported that the group is researching the next topic of how to measure the success of computer based training.

6. Announcements and Public Input

Mark Goldstein announced that the next Arizona Telecommunications and Information Council (ATIC) public meeting is scheduled for Thursday, February 16, 2006 from 2-4PM. This meeting will focus on all the high-technology policy activities underway in Arizona with a distinguished array of invited speakers. Mr. Goldstein invited MAGTAG members to join in person at the law office of Lewis and Roca in Phoenix at 40 North Central or by toll-free audio conference. Mark Goldstein said interested parties can view the ATIC monthly calendar of events for information on telecommunications activities occurring throughout the State.

7. Date of Future Meetings

The next meeting of the MAGTAG is scheduled for 10:00 a.m. on Thursday March 16, 2006 in the MAG Cholla room. The meeting was adjourned at 11:25 a.m.